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2012 ANTLER POINT RESTRICTIONS SURVEY: DEER MANAGEMENT UNITS IN THE NORTHWEST LOWER PENINSULA

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ABSTRACT

A survey was completed to determine whether hunters supported proposed mandatory Antler Point Restrictions (APR) in twelve counties in the Northwest Lower Peninsula. A key feature of the proposed mandatory regulations was changing the definition of a buck to a deer with three or more points on one antler. The Michigan Department of Natural Resources (MDNR) supports the voluntary implementation of APR practices on private land in Michigan. Mandatory APR are implemented by regulation only when a clear majority (>66%) of hunters support implementation. Questionnaires were sent to a random sample of hunters; 80% of hunters returned their questionnaire. About 69% of the people hunting deer in the Northwest Lower Peninsula supported implementing mandatory APR regulations. Support from hunters was sufficient to recommend implementation of antler point restrictions in the Northwest Lower Peninsula.

INTRODUCTION

The Northwest Michigan Chapter of the Quality Deer Management Association, a nongovernmental group, submitted a proposal to modify deer management regulations in twelve counties located in the Northwest Lower Peninsula (Figure 1). This proposal requested a change in buck harvest regulations to protect a portion of yearling bucks from harvest and allow them to become older. This would be done by changing the definition of a legal buck to a deer with three or more points on one antler, which would protect bucks with fewer points from harvest. The current definition of a legal buck is a deer with an antler greater than three



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inches in length. Existing regulations also allowed hunters to take a second buck if one of the harvested bucks has at least four points on one antler. This restriction would not change.

The proposal also advocated to continue harvesting enough antlerless deer annually to achieve an improved adult buck to adult doe ratio and to keep deer populations in balance with the habitat. Antlerless harvest quotas would be developed annually by the Wildlife Division for consideration by the Natural Resources Commission. As done in past years, quota establishment would consider such factors as past winter severity, population size relative to habitat, and the desires of local constituents.

The MDNR supports the voluntary implementation of antler point restrictions on private land. MDNR supports mandatory antler point restrictions only if at least 66% of hunters in the affected area support these regulations. Further, adopted regulation restrictions must be evaluated after five years to measure effectiveness.

The Natural Resources Commission and Wildlife Division have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Opinion surveys are a management tool used by the Wildlife Division to accomplish its statutory responsibility. The main objectives of this opinion survey were to determine whether hunters supported proposed antler point restrictions (i.e., three points on a side) in 12 counties in the Northwest Lower Peninsula.

METHODS

This survey was done in accordance with guidelines developed for evaluating proposed mandatory APR regulations in Michigan (Quality Deer Management Working Group 1999). A questionnaire was sent to 2,100 randomly selected hunters from the Northwest Lower Peninsula.

Prior surveys done to estimate support for proposed APR regulations have sampled landowners in addition to hunters. However, estimates of support have varied little between landowners and hunters in previous surveys (e.g., Frawley 2002, 2003a, 2003b). Thus, landowners were not sampled separately for the current survey.

The estimate of hunter support was calculated using a stratified random sampling design that included two strata (Cochran 1977). A random sample of hunters was obtained from a list of people that indicated they had hunted in the Northwest Lower Peninsula during 2011 (first stratum). This list represented randomly selected people included in the annual deer harvest survey that was conducted by the Wildlife Division (Frawley 2012). In addition, an additional random sample was selected from the list of hunters from the Northwest Lower Peninsula that had voluntarily reported information about their deer hunting activity via the internet prior to the initiation of the annual deer harvest survey (second stratum). The random sample consisted of 2,000 people from the first stratum and 100 people from the second stratum. The stratified sampling design accounted for the varying probabilities of being selected from the strata so estimates could be reliably extrapolated from the sample to all license buyers.

People receiving the questionnaire were asked to report whether they supported implementing the proposed mandatory APR regulation for the Northwest Lower Peninsula. Response options to the question on the proposal were “yes” or “no” (Appendix A). The percentage of support was measured by dividing the number of “yes” responses by the sum of those responses indicating “yes” or “no.” People who did not provide an answer were not used to estimate support for the proposed APR regulations. Moreover, opinions of hunters that did not hunt within the Northwest Lower Peninsula were not included when estimating support for the proposed APR regulations.

Estimates of support for the mandatory APR regulations were calculated along with their 95% confidence limit (CL). This CL could be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval was a measure of the precision associated with the estimate and implied that the true value would be within this interval 95 times out of 100. Estimates were not adjusted for possible response or nonresponse bias.

The random sample of people receiving the questionnaire included 2,100 hunters (Table 1). Questionnaires were initially mailed during August 2012. Up to two follow-up questionnaires were mailed to nonrespondents.

RESULTS AND DISCUSSION

Although 2,100 people were sent the questionnaire, 18 surveys were undeliverable resulting in an adjusted sample size of 2,082 (i.e., minus undeliverable questionnaires). Questionnaires were returned by 1,661 people, yielding an 80% adjusted response rate. The response rate exceeded the minimum response rate of 50% that was required in order to accept the results of the survey (Quality Deer Management Working Group 1999).

Among hunters that hunted in the Northwest Lower Peninsula, about 69% supported the proposed mandatory APR regulations (Table 2). About 32% of the hunters did not support implementation of the mandatory APR regulations. The support of hunters was sufficient to recommend adoption of the proposed APR for the Northwest Lower Peninsula by the Wildlife Division to the Natural Resources Commission. The Natural Resources Commission holds final authority regarding APR implementation, which will be up for consideration during establishment of deer hunting regulations for the 2013 season.

ACKNOWLEDGEMENTS

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Legend:

-  **Area of Proposed Regulation Change:**
Includes Antrim, Benzie, Charlevoix, Emmet,
Grand Traverse, Kalkaska, Lake, Manistee,
Mason, Missaukee, Osceola, and Wexford
counties, excluding the offshore islands of
those counties within Lake Michigan.
-  Other portions of Michigan



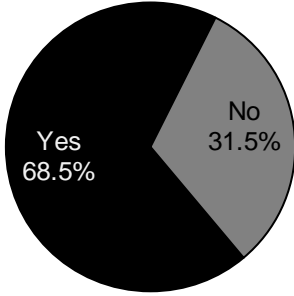
Figure 1. Twelve counties (shaded) in the Northwest Lower Peninsula affected by the proposed regulation changes, 2012.

Table 1. The estimated number of hunters in the Northwest Lower Peninsula and the number of hunters selected to receive the opinion survey about mandatory APR regulations in the Northwest Lower Peninsula, Michigan.

Total number of hunters ^a	Number of people included in sample ^a	Number of questionnaires that were undeliverable	Number of questionnaires returned	Response rate (%)
97,071	2,100	18	1,661	80

^aEstimated number of people that hunted deer in the Northwest Lower Peninsula in 2011 (Frawley 2012).

Table 2. Proportion of hunters supporting proposed antler point restrictions in the Northwest Lower Peninsula, Michigan, in 2012.

Response	Percentage of hunters ^a	95% CL ^b	Responses (%)
Yes (Supported mandatory APR regulations)	68.5	2.3	
No (Did not support mandatory APR regulations)	31.5	2.3	

^aPercentage of hunters that hunted deer in the Northwest Lower Peninsula; hunters that failed to provide an answer (<1%) were not used to measure support for mandatory APR regulations.

^b95% confidence limits.

Appendix A

Questionnaire used for the Antler Point Restriction Survey
of Deer Hunters in the Northwest Lower Peninsula.



MICHIGAN DEPARTMENT OF NATURAL RESOURCES, WILDLIFE DIVISION
PO BOX 30030 LANSING MI 48909-7530

DEER HUNTER OPINION SURVEY

This information is requested under authority of Part 435, 1994 PA 451, M.C.L. 324.43539.



A proposal has been submitted to the MDNR by the Northwest Michigan Chapter of the Quality Deer Management Association to modify deer regulations regarding the harvest of bucks in twelve counties in the northwest Lower Peninsula (see figure on reverse side). The proposal requests that the Natural Resources Commission (NRC) implement regulations that would require all bucks taken in the area have at least three points on one antler. The existing statewide requirement would remain in place for all hunters that take two bucks to ensure one of those bucks has at least four points on one antler. If implemented, these regulation changes would be in place for five years beginning with the 2013 deer hunting seasons. Another survey would be conducted to determine the level of support for retaining these regulations after five years.

Regulations regarding the take of antlerless deer would continue to be set as usual. The sponsoring group intends for regulations in the proposed area to advance the buck age structure, to reduce or hold deer-vehicle collisions and crop damage at acceptable levels, move the deer population towards an equal buck-to-doe ratio, maintain healthy fawns and survival rates, and hold deer populations at or below habitat limits.

1. Do you hunt deer in the area to be affected by these proposed regulations (see figure on reverse side)?
1 ☐ Yes 2 ☐ No
2. Do you own land in the area to be affected by these proposed regulations (see figure on reverse side)?
1 ☐ Yes 2 ☐ No
3. Do you support the proposal above?
1 ☐ Yes 2 ☐ No

*Please return questionnaire in the enclosed postage-paid envelope.
Thank you for your help.*

Shaded area will be affected by proposed regulation changes.

